

In the Claims:

Please amend Claims 1-2, 4, 6-9, 12-13, 15, 17-20, 23-24, 26 and 28-31; and add new Claim 34, all as shown below. Applicant respectfully reserves the right to prosecute any originally presented claims in a continuing or future application.

1. (Currently Amended) A system for message ordering in a message oriented network, independently of any conversation processing, comprising:

a sender or a plurality of senders, that sends messages as a plurality of groups of messages, wherein each message within a particular group are to be processed in a particular order;

a ~~receiver or a~~ plurality of receivers, that receives receive the messages; and,
wherein, for [[a]] each group of messages that are to be processed in [[a]] the particular order, each of said senders associate their the messages in that group with both a sequence group identifier for that group, and a sequence number for that message, ~~so that~~ and
wherein each of the receivers can identify

identifies messages having common sequence group identifiers, and then
cooperates amongst themselves with other receivers to process those messages in the particular order, including confirming, prior to processing a message received in a group and having a particular sequence group identifier and sequence number combination, that a previous receiver has already one of received or processed a message having the same sequence group identifier and the preceding sequence number.

2. (Currently Amended) The system of claim 1 wherein the sender is a client of a server, and wherein the receiver or receivers are different services operating at said server.

3. (Original) The system of claim 1 wherein the receiver or receivers are Web Services adapted to receive messages from a sender.

4. (Currently Amended) The system of claim 1 wherein the system includes a plurality of senders ~~and a plurality of receivers~~ and wherein a right to send a new message within a particular

sequence group identifier is represented as a token that is passed from one sender to another sender, so that the sender with the token is the only sender currently allowed to send a message with that sequence group identifier.

5. (Original) The system of claim 1 wherein the sequence group identifier is specified by the sender.

6. (Currently Amended) The system of claim 1 wherein the sequence ~~groups~~ group identifier is randomly chosen as a universally unique identifier.

7. (Currently Amended) The system of claim 1 wherein the system includes a plurality of receivers and the plurality of receivers communicate amongst themselves to process the messages in the particular order including allowing a subsequent receiver to directly contact the previous receiver to confirm that the previous receiver has already processed the message it received having the same sequence group identifier and the preceding sequence number.

8. (Currently Amended) The system of claim 1 wherein the system includes a plurality of receivers and wherein each message includes a previous designation identifier listing the previous destination of a message in the sequence, and wherein the subsequent receiver of a message in the sequence can verify that the message has been processed at the previously designated receiver.

9. (Currently Amended) The system of claim 1 wherein the message may ~~be represented by~~ an further include a sequence group identifier alias either at the sender or the receiver for use by that sender or receiver.

10. (Original) The system of claim 1 wherein the system includes a plurality of senders, and the senders use a multiple source relay process to determine which sender may send a new message in a specified SGI.

11. (Original) The system of claim 1 wherein the system includes a plurality of senders, and the senders use a multiple source sub-context model to determine which sender may send a new message in a specified SGI.

12. (Currently Amended) A method for message ordering in a message oriented network or system, independently of any conversation processing, comprising the steps of:

establishing a sequence group identifier;

preparing at each of one or a plurality of senders messages to be processed ~~in a particular order, by including both the sequence group identifier and a sequence number in or associated with the messages~~ as a plurality of groups of messages, wherein each message within a particular group are to be processed in a particular order;

sending the messages to one or a plurality of receivers; and[[,]]

receiving the messages at the one or a plurality of receivers and cooperating amongst the receivers to ensure that the messages are processed by the receivers in the order specified within each sequence group identifier, wherein each of the receivers

identifies messages having common sequence group identifiers, and then cooperates with other receivers to process those messages in the particular order, including confirming, prior to processing a message received in a group and having a particular sequence group identifier and sequence number combination, that a previous receiver has already one of received or processed a message having the same sequence group identifier and the preceding sequence number.

13. (Currently Amended) The method of claim 12 wherein the sender is a client of a server, and wherein the receiver or receivers are different services operating at said server.

14. (Original) The method of claim 12 wherein the receiver or receivers are Web Services adapted to receive messages from a sender.

15. (Currently Amended) The method of claim 12 wherein the system includes a plurality of senders ~~and a plurality of receivers~~ and wherein a right to send a new message within a particular

sequence group identifier is represented as a token that is passed from one sender to another sender, so that the sender with the token is the only sender currently allowed to send a message with that sequence group identifier.

16. (Original) The method of claim 12 wherein the sequence group identifier is specified by the sender.

17. (Currently Amended) The method of claim 12 wherein the sequence ~~groups~~ group identifier is randomly chosen as a universally unique identifier.

18. (Currently Amended) The method of claim 12 wherein the system includes a plurality of receivers and the plurality of receivers communicate amongst themselves to process the messages in the particular order including allowing a subsequent receiver to directly contact the previous receiver to confirm that the previous receiver has already processed the message it received having the same sequence group identifier and the preceding sequence number.

19. (Currently Amended) The method of claim 12 wherein the system includes a plurality of receivers and wherein each message includes a previous designation identifier listing the previous destination of a message in the sequence, and wherein the subsequent receiver of a message in the sequence can verify that the message has been processed at the previously designated receiver.

20. (Currently Amended) The method of claim 12 wherein the message may ~~be represented by an~~ further include a sequence group identifier alias either at the sender or the receiver for use by that sender or receiver.

21. (Original) The method of claim 12 wherein the system includes a plurality of senders, and the senders use a multiple source relay process to determine which sender may send a new message in a specified SGI.

22. (Original) The method of claim 12 wherein the system includes a plurality of senders, and the senders use a multiple source sub-context model to determine which sender may send a new message in a specified SGI.

23. (Currently Amended) A computer readable medium including instructions stored thereon which when executed cause the computer to perform the steps of:

establishing a sequence group identifier;

preparing at each of one or a plurality of senders messages to be processed ~~in a particular order, by including both the sequence groups identifier and a sequence number in or associated with the messages~~ as a plurality of groups of messages, wherein each message within a particular group are to be processed in a particular order;

sending the messages to one or a plurality of receivers; and[[,]]

receiving the messages at the one or a plurality of receivers and cooperating amongst the receivers to ensure that the messages are processed by the receivers in the order specified within each sequence group identifier, wherein each of the receivers

identifies messages having common sequence group identifiers, and then cooperates with other receivers to process those messages in the particular order, including confirming, prior to processing a message received in a group and having a particular sequence group identifier and sequence number combination, that a previous receiver has already one of received or processed a message having the same sequence group identifier and the preceding sequence number.

24. (Currently Amended) The computer readable medium of claim 23 wherein the sender is a client of a server, and wherein the receiver or receivers are different services operating at said server.

25. (Original) The computer readable medium of claim 23 wherein the receiver or receivers are Web Services adapted to receive messages from a sender.

26. (Currently Amended) The computer readable medium of claim 23 wherein the system includes a plurality of senders ~~and a plurality of receivers~~ and wherein a right to send a new message within a particular sequence group identifier is represented as a token that is passed from one sender to another sender, so that the sender with the token is the only sender currently allowed to send a message with that sequence group identifier.

27. (Original) The computer readable medium of claim 23 wherein the sequence group identifier is specified by the sender.

28. (Currently Amended) The computer readable medium of claim 23 wherein the sequence ~~groups~~ group identifier is randomly chosen as a universally unique identifier.

29. (Currently Amended) The computer readable medium of claim 23 wherein the system includes a plurality of receivers and the plurality of receivers communicate amongst themselves to process the messages in the particular order including allowing a subsequent receiver to directly contact the previous receiver to confirm that the previous receiver has already processed the message it received having the same sequence group identifier and the preceding sequence number.

30. (Currently Amended) The computer readable medium of claim 23 wherein the system includes a plurality of receivers and wherein each message includes a previous designation identifier listing the previous destination of a message in the sequence, and wherein the subsequent receiver of a message in the sequence can verify that the message has been processed at the previously designated receiver.

31. (Currently Amended) The computer readable medium of claim 23 wherein the message ~~may be represented by an~~ further include a sequence group identifier alias either at the sender or the receiver for use by that sender or receiver.

32. (Original) The computer readable medium of claim 23 wherein the system includes a plurality of senders, and the senders use a multiple source relay process to determine which sender may send a new message in a specified SGI.

33. (Original) The computer readable medium of claim 23 wherein the system includes a plurality of senders, and the senders use a multiple source sub-context model to determine which sender may send a new message in a specified SGI.

34. (New) A system for message ordering in a message oriented network, independently of conversation processing, comprising:

a plurality of senders, that are configured to send messages as a plurality of message groups to a plurality of different web service receivers,

wherein at least some of the messages within a particular group are to be processed by the different receivers in a particular order, and

wherein, for each message to be ordered, a sender associates the messages in a group with both a sequence group identifier for the group, and a sequence number for that message, to create a unique identifier for the message that spans the plurality of different receivers, and

wherein the sender further includes in a subsequent message to a receiver a pointer that indicates the destination receiver for a preceding message; and

a plurality of receivers, that are configured to receive and process the messages, wherein upon receiving a message, each of the receivers

identifies messages having common sequence group identifiers, and then

uses the pointer to contact the receiver of the preceding message to ensure that the previous receiver has already received and processed a message having the same sequence group identifier and the preceding sequence number.